

ZABLONSKIY, K.I.; BELYAYEV, M.S.

Determination of the modulus of elasticity of organic glass.  
Zav.lab. 27 no.10:1303-1305 '61. (MIRA 14:10)

1. Odesskiy politekhnicheskiy institut.  
(Plastics--Testing)  
(Elasticity)

ZABLONSKIY, K.I., kand.tekhn.nauk, dotsent; BELYAYEV, M.S., kand.tekhn.nauk;  
FILIPOVICH, S.I., inzh.

Operating a herringbone reducing gear. Vest. mash. 41 no. 5:33-37  
My '61. (MIRA 14:5)

(Gearing, Spiral)

U.S. Army, Ft. Belvoir, Colorado, 80148

Development of a series of pressure distribution plots contact  
lines in spinal gear transmissions. In: eye, head, and; nasal-  
rest, 1974. (AIAA 74-12)

1. Aerospace Politechnical Institute.

BELYAYEV, M.V., inzh.; GORSHKOV, A.F., inzh.

Mathematical model of a magnetic amplifier. Izv. vys. ucheb. zav.;  
gor. zhur. 6 no.3:150-154 '63. (MIRA 16:10)

1. Ural'skiy politekhnicheskly institut imeni Kirova.

PROCESSING AND PROPERTIES INDEX

B-64  
L.

621.316.71 : 621.313.236.3 : 621- 526  
**3720. Transient conditions in the simplest circuit using servo-mechanisms. M. V. BILALOV. *Izv. vuzovskogo (No. 6) 42-6 (June, 1950) In Russian.***  
 In a regulating circuit using an amplidyne for the supply of a single electric motor, the necessary stability of operation may be achieved by a correct choice of the resistance shunting the compensating winding. A theoretical analysis of the stability conditions is carried out, the necessary experimental data being given. Non-linear resistances are useful for obtaining rapidly damping transients when cutting out the drive. Oscillograms of the transients corresponding to various values of resistance are given.  
 B. F. KRAUS

ASB.31A METALLURGICAL LITERATURE CLASSIFICATION

BELYAYEV, Docent M. V.

178T28

USSR/Electricity - Furnaces, Electric Control Circuits Dec 50

"Automatic Electric Arc Control" Docent M. V. Belyayev, Cand Tech Sci, Ural Polytech Inst imeni Kirov

"Elektrichestvo" No 12, pp 37-41

Results of theoretical and lab work on automatic regulation of elec arc, which showed that simple amplidyne circuit could provide stable control. Established in gen form parameter relationships providing stable operation. Overcompensated amplidynes would increase circuit sensitivity and speed. Submitted 25 May 50.

178T28

BELYAYEV, M.V., dotsent.

Increasing the technical and economic efficiency of synchronous  
electric drives operated under varying loads. Sbor.st.Ural.  
politekh.inst. no.48:131-138 '53. (MLRA 9:3)  
(Machine Tools--Electric driving)

621.34 : 621.315.238.3 ; 621.318.435.3  
3281. Use of magnetic amplifiers in electric drives with amplidyne control. M. V. BELYALY, *Elektrichestvo*, 1954, No. 3, 54-7. *In Russian*.  
One of the possible methods of using transductors in generator-motor systems with amplidyne control is considered. Their use is shown to reduce substantially the losses in the main current circuit. The relative reduction is numerically equal to the amplification factor of the transductor (approximately 20-30). The use of the transductors also enables sufficiently rigid working parts of the mechanical characteristics without current cut-off to be obtained, this being achieved by suitable matching of the no-load characteristics of the amplidyne. The determination of the circuit parameters is a comparatively simple task and may be based on the required mechanical characteristics of the drive. The theoretical results are confirmed by test data.  
B. F. KRATK

BELYAYEV, M.V.

POLTEV, Vladimir Kirillovich; SMOL'NIKOV, Lev Petrovich; SHPUNBERG, Ya.N.  
kandidat tekhnicheskikh nauk, retsenzent; KEL'NIK, V.P., redaktor;  
BELYAYEV, M.V., kandidat tekhnicheskikh nauk, redaktor; KOVALENKO,  
N.I., tekhnicheskiiy redaktor

[Electrical equipment for metallurgical shops] Elektrooborudovanie  
metallurgicheskikh tsekhov. Sverdlovsk, Gos. nauchno-tekhn. izd-  
vo lit-ry po chernoi i tsvetnoi metallurgii. 1954. 486 p. (MLRA 8:5)  
(Metallurgical plants--Electric equipment)

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 11, p 16 (USSR) SOV/137-58-11-21943

AUTHOR: Belyayev, M. V.

TITLE: The Use of Magnetic Amplifiers in Automatic-control Systems for Electric Arc Furnaces (Magnitnyye usiliteli v sistemakh avtomaticheskogo regulirovaniya dugovykh pechey)

PERIODICAL: V sb. : Materialy konferentsii-kursov po elektroprivodu i avtomatiz. tekhnol. protsessov metallurg. predpriyatiy. Sverdlovsk. Metallurgizdat, 1957, pp 98-107

ABSTRACT: An examination is made of the properties of the electric drive of a mechanism for moving electrodes in which magnetic amplifiers (MA) are used instead of amplidyne-type regulators. We are offered the derivation of formulas for the analysis of the static characteristics of systems of regulation employing MA, also a calculation procedure. Emphasis is placed on the aspects in which the technical properties of MA and amplidynes are commensurable: Continuity of control, high sensitivity, rapidity of action, ease of tuning, high amplification factor. Utilization of MA instead of amplidynes simplifies the system of automatic regulation, reduces costs, and

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The Use of Magnetic Amplifiers in Automatic-control Systems (cont.) SOV/137-58-11-21943

eases the conditions of operation. It is proposed that this system of control be installed to replace obsolete and outworn closing-relay systems. Practical tests of the system yielded satisfactory results.

A. S.

Card 2/2

137-58-4-7065

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 109 (USSR)

AUTHOR: Belyayev, M. V.

TITLE: Applying Magnetic Amplifiers in Control Systems for Auxiliary Electric Drives of Rolling Mills (Primeneniye magnitnykh usiliteley v sistemakh upravleniya elektroprivodami vspomogatel'nykh mekhanizmov prokatnykh stanov)

PERIODICAL: V sb. : Materialy konferentsii-kursov po elektroprivodu i avtomatiz. tekhnol. protsessov metallurg.predpriyatii. Sverdlovsk, Metallurgizdat, 1957, pp 149-168

ABSTRACT: The application of a push-pull magnetic amplifier (MA) with deep positive feedback to introduce cutoff in accordance with the loading current in an amplidyne control circuit of a motor-generator system for mechanisms requiring torque-moment limitation tends to increase the rigidity with which the mechanical characteristic is adhered to, reduces losses in the main circuit, and frees the design from the need for potentiometric units. The introduction of MA into the field winding of a model EMU-5-3000 amplifier, and of negative voltage feedback in the EMU after its field winding has been disconnected reduces the EF of the re-

Card 1/2

137-58-4-7065

Applying Magnetic Amplifiers (cont.)

residual magnetism virtually to zero. Replacement of an EMU serving as generator exciter in a motor-generator system by a machine of the normal type divided however into two parts by a field coil fed from a push-pull MA, and the introduction of a voltage cutoff through a second MA with positive feedback cuts the cost of the exciter in half and makes it possible for any plant to manufacture a system of this kind. The employment of a MA as a generator of additional EMF in the coil circuit for independent (or mixed) excitation of a DC machine of normal design makes it possible to intensify excitation of the generator in accordance with the starting current.

D. K.

1. Rolling mills
  2. Electric motors--Control systems
  3. Magnetic amplifiers
- Applications

Card 2/2

BEIYAYEK, M.V.

8(2): 28(1) PHASE I BOOK EXPLOITATION SOV/1133  
 Sveshchaniye po avtomatizirovannomu elektropriivodu peremennogo  
 toka, Moscow, 1958  
 Trudy... (Transactions of the Conference on Automated A-C  
 Electric Drives), Moscow, Izd-vo AN SSSR, 1958. 398 p.  
 4,000 copies printed.  
 Sponsoring Agency: Akademiya nauk SSSR. Institut avtomatiki i  
 telemekhaniki.

Resp. Eds: V.S. Kulebakin, Academician, and M.G. Chilikin,  
 Doctor of Technical Sciences, Professor, Ed. of Publishing  
 House: D.N. Joffe; Tech. Ed.: I.P. Kar'min.  
 COVERAGE: The conference was organized on the initiative of  
 the Institute of Automation and Telemechanics of the Academy  
 of Sciences, USSR, and the Moscow Power Engineering Insti-  
 tute and had as its aim the planning of the most progressive  
 ways of developing automatic control of electric drives. The  
 first conference on the subject of automated electric drive  
 took place more than ten years before the present one and  
 was concerned with d-c electric drives. The results of this  
 conference were found to be most valuable in the task of re-  
 building power Soviet industry and in furthering industrial  
 development. Present technical development of Soviet industry  
 demands high speed simplicity of construction, reliability  
 and economy. The squirrel-cage induction motor  
 with frequency control appears to be the most promising type  
 of electric drive. For wide application of this drive  
 in the Soviet economy there is a need of developing new ways  
 of frequency converters. Some interesting studies were made  
 in this connection at the Institute of Automatics and Tele-  
 mechanics of the USSR Academy of Sciences and its Leningrad  
 branch, at the Moscow Power Engineering Institute, the Central  
 Design Bureau of the Elektrosil' Plant, the State Design  
 Institute of the Ministry of Construction of the RSFSR, and  
 in other design organizations. These studies were discussed  
 at the present conference. The transactions contain material  
 concerning the theory and design of reactor, pulse, and  
 frequency methods of controlling a-c electric drives.  
 The results of the studies were presented at the conference  
 by the authors. The authors of the papers are: I.V. Utkin and Engineer V.A.  
 Kokoreva participated in the preparation of this collection  
 of papers. The volume was reviewed by Professor Ya. V. Mitusov,  
 Doctor of Technical Sciences. Some of the papers include a  
 bibliography.

TABLE OF CONTENTS:

Bel'ayev, M.V., Candidate of Technical Sciences. Pos- sibilities of Using Magnetic Amplifiers in Automatic Electric Drives of Machines and Mechanisms such as Rolling Mills, Excavators, Arc Furnaces, and Milling ma- chines have electric drives usually controlled by rotating regulator systems with quadrature field (of the amplidyne type). These have many disadvantages, and new magnetic amplifiers may be used to replace them. Magnetic amplifiers are used in addition to a rotating regulator control system also as independent control systems. Their advantages are simplicity of construction, reliability, comparatively low inertia, comparatively high amplification coefficient, low energy consumption, the important property of algebraic addition of external signals, and the lack of rotating parts. The author explains the theory and discusses practical results. There are no references.	332
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~~BELYAYEV, Mikhail Vasil'yevich~~, kand.tekhn.nauk, dots.

Amplification factor and electromagnetic inertia of magnetic amplifiers. Izv. vys. ucheb. zav.; elektromekh. 1 no.6: 67-76 '58. (MIRA 11:9)

1. Kafedra elektrifikatsii promyshlennykh predpriyatii Sverdlovskogo politekhnicheskogo instituta.  
(Magnetic amplifiers)

BELYAYEV, M.V.

Power aspect in evaluating the stability of nonlinear electro-  
mechanical systems. Trudy Ural. politekh. inst. no.79:160-172  
'59. (MIRA 13:7)

(Electric driving) (Automatic control)



ZAKHARASHEVICH, Inna Aleksandrovna; BELYAYEV, M.Y., dotsent, retsenzent;  
GORDON, M.M., inzh., retsenzent; SHAVEL'ZON, M.V., inzh.,  
retsenzent; YERMAKOV, N.P., tekhn.red.

[Design and adjustment of automatic regulators of thermal  
processes] Proektirovanie i nastroyka avtoregulyatorov teplo-  
vykh protsessov. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.  
lit-ry, 1960. 259 p. (MIRA 14:2)  
(Electronic control) (Heat engineering)

BELYAYEV, M.V., dotsent, kand.tekhn.nauk

Magnetic control of a d.c. drive. Trudy Ural.politekh.inst.no.101:  
104-110 '60. (MIRA 14:3)

(Magnetic amplifiers)

BELYAYEV, M.V.

Transient processes in the main network of saturable reactors.  
Trudy Ural. politekh. inst. no.106:76-85 '60. (MIRA 15:5)  
(Electric transformers)  
(Electric coils)

BELYAYEV, M.V.

"A Rational System for the Maintenance of Highly-Productive Cows";

dissertation for the degree of Candidate of Agricultural Sciences  
(awarded by the Timiryazev Agricultural Academy, 1962)

(Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii, Moscow, No. 2,  
1963, pp 232-236)

**BELYAYEV, M. Ya.**

Importance of determination of pyruvic acid in urine in cardiovascular diseases. Ter. arkh. 22 no.5:43-45 Sept-Oct 1950. (CLML 20:1)

1. Of the Faculty Therapeutic Clinic (Director -- Honored Worker in Science Tatar ASSR Prof. Z. I. Malkin), Kazan' Medical Institute, Kazan'.

ПЕВНИЙ М. Я.

ПЕВНИЙ М. Я.

O znachenii perelivaniia massivnykh doz krovi pri travmaticheskikh anevrizmakh. /Significance of massive blood transfusion in traumatic aneurysms/ Khirurgia, Moskva No. 6 June 51 p. 29-33.

1. Of the Propedeutic Surgical Clinic, Kazan' Medical Institute (Director--Prof. B. G. Gertsberg, deceased), Kazan'.

BILANOW, H. M.

Vitamin C content in the blood and influence of various vitamins upon its  
effectiveness in cardiovascular diseases.  
Klin. med. 30 no. 1, 1952

BE LYAYEV, M.Ya.

Quantitative determination of bisulfite-binding substances (pyruvic acid) in urine. Lab.delo 4 no.5:24-27 S-O '58 (MIRA 11:11)

1. Iz respublikanskoy klinicheskoy bol'nitsy Kazani (nauchnyy rukovoditel' - prof. Z.I. Malkin):

(PYRUVIC ACID)

(URINE--ANALYSIS AND PATHOLOGY)

BELYAYEV, M.Ya.

Home treatment of patients with chronic cardiac decompensation.  
Vrach.delo no.8:789-793 Ag '58 (MIRA 11:8)

1. Pervaya klinicheskaya gorodskaya bol'nitsa Kazani.  
(HEART FAILURE)  
(HOME NURSING)

BELYAYEV, M.Ya.

Results of treating hypertension in advanced age. Sov.med. 23 no.1:  
97-99 Ja '59. (MIRA 12:2)

1. Iz lechebno-profilakticheskogo ob'yedineniya 1-y gorodskoy kli-  
nicheskoy bol'nitsy Kazani (glavnyy vrach Z.A. Sinyavskaya, nauchnyy  
rukovoditel' - prof. A.G. Teragulov).  
(HYPERTENSION, in aged  
results of ther. (Rus))

BELYAYEV, N. Ya.

Treatment of bronchial asthma by intracutaneous injections of  
distilled water and saturation of the body with ascorbic acid.

Vrach.delo no.10:115-117 0 '60.

(MIRA 13:11)

1. Poliklinika No.6 g. Kazani.

(ASTHMA)

(WATER, DISTILLED--THERAPEUTIC USE)

(ASCORBIC ACID)

BELYAYEV, M.Ya.

ACTH and ascorbic acid in the treatment of bronchial asthma.  
Probl.endok.i gorm. 7 no.2:51-56 '61. (MIRA 14:5)  
(ASTHMA) (ACTH) (ASCORBIC ACID)

BELYAYEV, M.Ya. (Kazan')

Vitamin C metabolism in patients with bronchial asthma.  
Vrach. delo no.9:30-35 #163. (MIRA 16:10)

1. Terapevticheskiye kliniki 1-go Leningradskogo i Kazanskogo  
meditsinskikh institutov (nauchnyye rukovoditeli -- prof. P.K.  
Bulatov i prof. Z.T.Malkin).  
(ASCORBIC ACID) (ASTHMA)

ACC NR: AP7001765

(N)

SOURCE CODE: UR/0310/66/000/010/0032/0033

AUTHOR: Belyayev, N. (Engineer); Zubkov, N. (Engineer); Polyakov, V. (Engineer)

ORG: VDSK im. V. I. Lenin Administration (Upravleniye VDSK)

TITLE: Method for conducting river bed surveys

SOURCE: Rechnoy transport, no. 10, 1966, 32-33

TOPIC TAGS: geodetic survey, geologic survey, hydrographic survey, surveying ship, surveying instrument, inland waterway, optic range finder, ranging, *UNDERWATER SOUNDING EQUIPMENT*

ABSTRACT: The basis of a new method of making river bed surveys is the coordination of soundings by solving the inverse geodesic problem contained in the process of ship movement by fixing two angles as a result of continuous sightings with three theodolites on three points of reference ashore, the coordinates of which are known. The new method provides for simultaneous coordination of the soundings taken by the sounding ship through a system containing an "instrument-selsyn-differential selsyn," which transmits two continuously observed angles to an operator who is charged with laying out the plan, a survey of the shore situation, including water lines, the edges of steep banks, and other reference points, using a range finder, the soundings taken by a fathometer with several transmitters mounted in a special console, and the initial laboratory processing. The entire survey party, 11 men, is embarked in

Card 1/2

UDC: 528.47

ACC NR: AP7001765

the sounding ship (a motorship). The method is described, and the results obtained by one survey party working on the lower Don River established the fact that productivity increased by a factor of 3.3 when the new method and equipment was used and compared with the conventional method. The one survey party provided a saving of about 4,000 rubles annually. Orig. art. has: 4 figures.

SUB CODE: 08/SUBM DATE: None

Card 3/2

BELYAYEV, N.

Unjustified sluggishness. NFO no.4:42-43 Ap '59.  
(MIRA 12:6)

(Shipping)

BELYAYEV, N.

A new Soviet pension law. Vsem. prof. dvizh. no.1:29-31 Ja '57.  
(MIRA 14:9)  
(Pensions)

✓✓  
BELIAEV, N.

Rodina aviatsii; kratkie ocherki po istorii razvitiia aviatsii v Rossii. [The native land of aviation. Brief sketches in the history of the development of aviation in Russia]. Moskva, Izd-vo Dosarm, 1950. 88p.

DLC: Slavic unclass.

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

PHILIP, H.

Stakhanov Movement

From Stakhanovite brigades to Stakhanovite factories. Khlokovskoye No. 6, 1951.

Monthly List of Russian Accessions, Library of Congress  
June 1953. MNCL.

1. BELYAYEV, N.
2. USSR (600)
4. Cotton Gins and Ginning
7. How progressive cotton mills control losses of raw cotton.  
Khlopkovodstvo no. 7, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

BELYAYEV, N.

USSR/Electronics - Television

Card 1/1

Author : Belyaev, N.

Title : Experimental Station for Color Television

Periodical : Radio. 5, 31 - 32, May 1954

Abstract : Reference is made to an article entitled, "Color in the Television Screen" (Tsvet na Ekране Televisora), by Novakovsky and Pisarevsky, published in Radio No. 11, 1954, Moscow, USSR. The article explains, perfunctorily, the principle of color television. It gives some technical data relative to the experimental station's operation, i.e.: data on the dimensions of the television screen and its horizontal and vertical scanning; number of images per second; form of signal impulses, and frequency characteristic of the transmitting path. Three diagrams are shown in this article.

Institution : ....

Submitted : ....

БЕЛЫАЕВ, Н.

85-58-5-11/38

AUTHOR: Belyayev, N. (Tula)

TITLE: There is Strength in Active Membership (Obshchestvennyy aktiv - bol'shaya sila)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 5, p 7 (USSR)

ABSTRACT: The author tells of the activities of Vladimir Kochelkov, sportsman 1st rank and graduate of the Tul'skiy oblastnoy aeroklub (Tula Oblast Aeroclub) who is now instructing groups of young workers in parachute jumping at the Tula armament plant. The instruction of many teams in the city is the direct result of the cooperation between Komsomol and DOSAAF organizations at the plant. Personalities mentioned include Ye. Korniev, Secretary of the VLKSM Committee, and N. Dronov, Chairman of the DOSAAF Committee of the plant. The 1957 Tula Aeroclub class graduated 11 public instructors in parachute jumping, of whom Komsomol members Sergey Chepelev, Viktor Lisitsyn, Valentina Kolosova, and Yuriy Shaladyshev show outstanding ability. They are now training more than 100 people at the local machine-building plant, the mining institute, and at the Tekhnicheskoye uchilishche No. 1 (Technical School No 1). Komsomol and DOSAAF

Card 1/2

85-58-5-11/38

There is Strength in Active Membership

Committees coordinate their activities in supervising the work of the teams and by introducing leading sportsmen to the trainees. Personalities mentioned include N. Kurshevaya, woman's world record holder, and N. Breykin, Master of Sports. A photograph shows V. Kochelkov instructing a parachutist class.

ASSOCIATION: Tul'skiy oblastnoy aeroklub (Tul'skaya Oblast' Aeroclub)

AVAILABLE: Library of Congress

Card 2/2      1. Aviation - USSR  
                 2. Parachute jumping

BELYAYEV, N.

Forced unification. NTO 2 no.8:45-46 Ag '60.  
(Technical societies)

(MIRA 13:10)

BELYAYEV, N.

Consider man when creating the new. NTO 3 no. 5:39-41 Ky '61.  
(MIRA 14:5)

(Technological innovations)  
(Industrial safety)

BELYAYEV, N. (Kolonna, Moskovskoy oblasti)

Inspiring people. NTO 2 no.5:45-48 Ky '60.  
(Kolonna--Diesel locomotives)

(MIRA 14:5)

BELYAYEV, N., inzhener-polkovnik; ALYAB'YEV, N., mayor tekhnicheskoy sluzhby

Electrically equipped vehicle training course. Tyl i snab.Sov.Vcor.  
Sil 21 no.1:70-75 Ja '61. (MIRA 14:6)

(Vehicles, Military)

(Electric apparatus and appliances)

MAKOVER, S.G.; BELYAYEV, N.A.

Program for numerical integration of equations of the motion of minor planets and for the comparison with observations. Biul. Inst. teor. astron. 9 no.8:542-549 '64. (MIRA 17:12)

BELYAYEV, N. A.

37167. Sinopticheskaya popravka astronomicheskoy refraktsii. Astron. Zhurnal, 1949, Vyp. 6, s. 363-72. — Bibliogr: 11 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol 7, 1949

БЕЛЫАЕВ, Н.А.

"Problem of the Astronomic Determination of Geodetic Azimuth by the Direct Method"  
Cent. Sci. Res. Inst. of Geod., Aer. Survey and Cartog.

Astr. Zhur, vol. 30, no. 2, pp. 196-209, March/April 1953

Presents practical formulas and example of treatment of a pair of stars for determining of geodetic azimuth of triangulation sides with the same accuracy over the whole geodetic network without knowledge of the accurate astronomical coordinates.  
Received 5 Feb 52

251T8

BELYAYEV N. A.

AID P - 377

Subject : USSR/Astronomy

Card 1/2 Pub. 8 - 7/12

Author : Belyayev, N. A.

Title : Synoptic Refraction Anomalies in the Region of the Anticyclone in the Middle Part of the European Territory of the USSR

Periodical : Astron. zhur., v. 31, 3, 267-280, My-Je 1954

Abstract : Principles of the analysis of synoptic refraction anomalies are given in connection with synoptic processes in the troposphere. The method and results of computation of the integral slope of air layers of equal density are given from aerological data. The results of the calculation of synoptic refraction anomalies, which may take place when determining the latitude, watch error and azimuth, are given in formulae. 6 tables, a graph and 37 formulae illustrate the text which is mainly mathematical. Three references (after 1946), of which two are Russian.

AID P - 377

' Astron. zhur., v. 31, 3, 267-280, My-Je 1954

Card 2/2 Pub. 8 - 7/12

Institution : The Central Scientific and Research Institute of Geodesy,  
Aerial Survey and Cartography

Submitted : June 6, 1953

HEL'YAYEV, N.A.

Refraction of extraterrestrial radio emission in the atmosphere.  
Astron. zhur. 32 no. 4:359-372 J1-Ag'55. (MIRA 8:10)  
(Radio astronomy)

BELYAYEV, N.A.

Determining astronomical refraction. *Astron. zhur.* 32 no.6:  
555-562 N-D '55. (MLRA 9:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut geodezii,  
aeros"yemki i kartografii.  
(Refraction, Astronomical)

BELYAYEV, N. A.,

"A Photoelectric Device for Field Astronomical Measurements," The International Association of Geodesy; Abstracts of the Reports at the XI General Assembly of the International Union of Geodesy and Geophysics, Moscow, Izd-vo AN SSSR, 1957, 63 p. 1,500 copies printed.

The described photoelectric system designed to record the passage time of stars is attached to the AU 2/10 astronomical vertical instrument (Engineer's transit) and does not increase substantially the weight or bulk of a field party's equipment; it is easy to control and permits making longitudinal and latitudinal determinations at first order stations without introducing human errors into the observations. Accuracy achieved is greater than usual and observations can be reduced in number.

BELYAYEV, N.A.

Device for automatically irisng the lens of an aerial camera.  
Trudy TSNIIGAİK no.142:51-68 '61. (MIRA 15:8)  
(Photography—Exposure) (Automatic control)

BELVAYEV, N.A.

Electronic printer for printing aerial negatives. Trudy  
TSNIIGAIK no.142:221-233 '61. (MIRA 15:8)  
(Photography--Printing processes)

S/077/61/006/005/003/004  
D051/D113

AUTHOR: Belyayev, N.A.

TITLE: Electron copying device

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 6,  
no. 5, 1961, 353-357

TEXT: The author reports on the design, adjustment, and testing of an electron copying device recently developed at the laboratory of aerial photography of his institute (TsNIIGAIK) and intended for photoprinting black-and-white aerial negatives on paper, films, and glass plates. The size of the picture area is 180 X 180 mm. The device is made of Soviet standard parts and radio fittings and consists of the following basic components: (1) a printing table with a control contact unit and a projecting objective, (2) a standard kinescope of the type 35ЛК 2Б (35LK2B) for regulated illumination of the picture area of the printing table, (3) a light receiver, (4) a video amplifier, and (5) an installation for automatic exposure metering. A general block-diagram of the device is given in Fig. 1. It basically corresponds to the block-diagram of the US Logetron device (Abstracter's note: 

Card 1/3

Electron copying device

S/077/61/006/005/003/004  
D051/D113

only the Russian transliteration is available) which was developed by Dwin R. Craig and published in 1954. The Soviet device has a single-channel video amplifier for masking details and permits zigzag scanning at frequencies of 145 and 160 cycles. The device also permits 4 to 8 mm details to be eliminated. Mass photo printing in the laboratory showed the reliability of the device. It worked at circuit voltage fluctuations of -10% to + 5% from the established rating. On normal photographic paper the device guarantees the production of up to 60 prints from aerial negatives with a density step of not more than 1.8. The prints were of good quality and showed more details than prints obtained by the usual contact method. The author thanks V. Ya. Mikhaylov for his help. There are 4 figures. ✓

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut geodesii, aeros'yemki i kartografii (TsNIIGAik) (Central Scientific Research Institute of Geodesy, Aerial Surveying and Cartography [TsNIIGAik])

SUBMITTED: January 28, 1960

Card 2/3

Electron copying device

S/077/61/006/005/003/004  
D051/D113

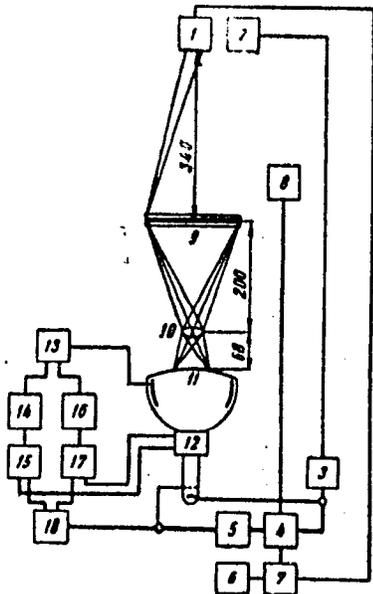


Fig. 1. Block-diagram of the electron copying device. 1 - photomultiplier; 2 - cathode follower; 3 - video amplifier; 4 - integrating scaler; 5 - balanced relay contact switch; 6 - converter for photomultiplier power supply; 7 - control board; 8 - contact unit of the printing table; 9 - printing table; 10 - projecting objective; 11 - kinescope; 12 - deflecting system; 13 - line generator and high-voltage rectifier; 14 - first sawtooth voltage generator; 15 - cascade for amplifying first scanning; 16 - second sawtooth voltage generator; 17 - cascade for amplifying second scanning; 18 - blackout installation for fly-back of kinescope beam

Card 3/3

BELYAYEV, N.A.

Electric drive for azimuthal rotation of a universal theodolite.  
Geod. i kart. no.9:30-34 S '63. (MIRA 16:10)

ACCESSION NR: AP3012411

S/0006/63/000/010/0017/0025

AUTHOR: Belyayev, N. A.

TITLE: Field photoelectric apparatus for astronomic determinations

SOURCE: Geodeziya i kartografiya, no. 10, 1963, 17-25

TOPIC TAGS: field geodetic instrument, longitude determination, latitude determination, azimuth determination, astronomic position determination, geodetic control determination, photoelectric geodetic instrument, photoelectric astronomic instrument, radio time signal, USSR Time Service

ABSTRACT: The details of a field photoelectric apparatus PFU-1 designed and built in 1957 to determine longitude and latitude points of class 1 triangulation for stars on a universal AU 2/10 instrument are presented. The local stellar time and latitude are determined by observing a pair of stars on corresponding altitudes. The components of the apparatus are: a radio receiver-amplifier, single-stylus ondulator, block electric source, universal instrument AU 2/10, and a contact chronometer (see Fig. 1 on the Enclosure). The instrument operates on a bantam tube, uses 15 volts, and is fed by two seven-volt 5NKN60 accumulators. Each

Card 1/3

ACCESSION NR: AP3012411

component is described in detail, and the subsequent addition (1960) of a photo-electric micrometer to determine the azimuth angle in addition to latitude and longitude is mentioned. The kinematic diagram of this micrometer is given and its operating characteristics described. The micrometer was added to AU 2/10 No. 3203 and tested in 1960, followed by another successful test on AU 2/10 No. 10062 in 1961. A set of experiments was performed on a flashlight placed 15 km distant. The mean error of the micrometer was determined to be less than  $\pm 0''.70$ . Orig. art. has: 9 figures, 3 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: AA

NO REF SOV: 000

OTHER: 000

Card 2/3

ACCESSION NR: AP3012411

ENCLOSURE: 01

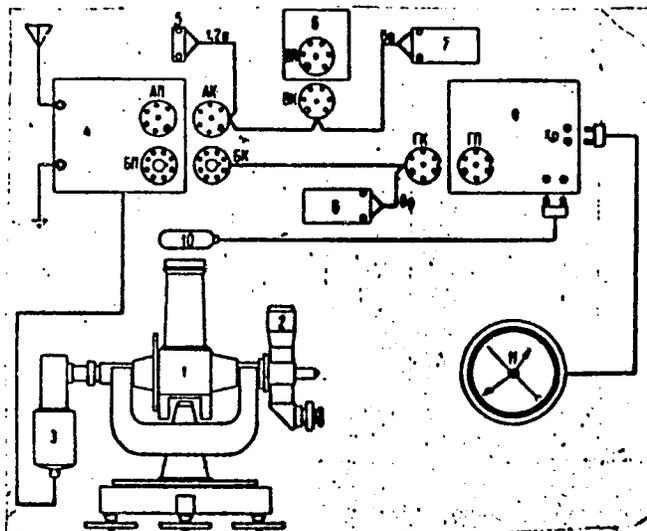


Fig. 1. Block-schematic of PFU-1 with universal instrument AU 2/10.

- 1- universal instrument;
- 2- selector tube; 3- photoelectric adaptor; 4- radio receiver-amplifier; 5- accumulator 1NKN60; 6- transformer;
- 7, 8- accumulator 5NKN60;
- 9- ondulator; 10- neon lamp; 11- contact chronometer.

Card 3/3

BELYAYEV, N.A.

Determining latitude and longitude with a field photoelectric  
unit. Geod. i kart. no.6:12-17 Je '64. (MIRA 17:9)

L 12945-65 EWT(1) GW

ACCESSION NR: AP4041333

S/0006/64/000/006/0012/0017

AUTHOR: Belyayev, N. A.

TITLE: Determination of longitude and latitude with field-type photoelectronic apparatus B

SOURCE: Geodeziya i kartografiya, no. 6, 1964, 12-17

TOPIC TAGS: geodetic position determination, photoelectronic geodetic apparatus, longitude determination, latitude determination

ABSTRACT: Experiments were carried out by the Sluzhba vremeni Tsentral'nogo nauchno-issledovatel'skogo instituta geodezii, aero-fotografii i kartografii (Time Service of the Central Scientific-Research Institute of Geodesy, Aerial Photography, and Cartography) in 1955-1960 to test the accuracy of longitude and latitude determinations made with mockups of the PFU photoelectronic apparatus. Longitudes were determined by the Tsinger method and latitudes, by the Pevtsov method using AU 2/10 universal instruments. Longitudes were derived on the basis of radio time signals recorded on tape, clock corrections and delay times being made photoelectronically. All

Card 1/2

L 12945-65  
ACCESSION NR: AP4041333

observations were made at night. Analyses of these data are reported as follows: the mean square error of one determination of square-wave signals from 10 flashes of a neon tube was  $\pm 0^s.0025$  and that in deriving the delay of the sinusoidal signals,  $\pm 0^s.003$ ; the error in deriving the mean moment of the time of radio-signal reception from the tape recordings of 20 signals was of the order of  $\pm 0^s.0025$ ; the error of the photoelectronic determination of clock corrections from one Tsinger pair was  $\pm 0^s.025$  (transit rotated in azimuth by an electric motor) and  $\pm 0^s.035$  (manually rotated); the error of the mean moment of a Tsinger pair (summer) was  $\pm 0^s.011$ , varying between  $\pm 0^s.009$  and  $\pm 0^s.014$  for various evenings depending on the star image scintillation; the error in deriving one longitude averaged  $\pm 0^s.019$ , and that of latitude determination using one Pevtsov pair was about  $\pm 0^s.35$ . Orig. art. has: 5 tables.

ASSOCIATION: none

SUBMITTED: 00

ATD PRESS: 3102

ENCL: 00

SUB CODE: ES, EC

NO REF SOV: 001

OTHER: 000

Card 2/2

BELYAYEV, N.A.

Photoelectric determination of the geodetic azimuth by a direct  
method. Geod. i kart. no.9:13-17 S '64.

(MIRA 17:12)



LEUTSKIY, K.M., prof., otv. red.; KALYUZHNIY, I.F., dots., red.;  
LISHCHENKO, N.A., dots., red.; BYKOVA, O.Ye., kand. filol.  
nauk, red.; GOROKHOVA, Z.N., dots., red.; TOKMAKOV, A.I.,  
dots., red.; DOMBROVSKIY, A.V., dots., red.; BELYAYEV, N.G.,  
dots., red.; LYUBOPYTNOVA, V.S., dots., red.; MUZYCHKO, G.I.,  
tekhn. red.

[Science yearbooks for 1957] Nauchnyi ezhegodnik za 1957 god.  
Chernovtsy, Chernovitskii gos. univ., 1958. 522 p.

(MIRA 16:10)

1. Czernowitz. Universytet. 2. Rektor Chernovitskogo gosudarstvennogo universiteta (for Leutskiy).

(Science--Yearbooks)

(Social sciences--Yearbooks)

BELYAYEV, Nikolay I.

[Speech at the 20th Congress of the CPSU, February 21, 1956] Promova  
na XX z'izdi KPRS, 21 liutoho 1956. Kyiv, Derzh. vyd-vo polit.  
lit-ry 1956. 20 p. port. (MIRA 11;11)  
(Agriculture--Economic aspects)

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Ca

Possible errors in the determination of calcium and magnesium. N. I. Bel'raev. *Zavodskaya Lab.* 3, 462-3 (1934).—The high values for Ca and Mg and correspondingly low values for K and Na obtained in the analysis of waters and soil extrs. by the Palmer method were traced to poor Russian filter paper. Chas. Blanc

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

WATER-ALY. NOTE

GROUPS

LETTERS

GROUPS

LETTERS

GROUPS

LETTERS



1/5

134 2/11/82, 1/12

BELYAYEV, N.I.

BELYAYEV, N.I.

Intensification of processes for the production of weak nitric acid.  
Khim.prom. no.4:214-219 Je '57. (MLRA 10:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut  
azotnoy promyshlennosti.

(Nitric acid)

BELYAYEV, N.

CHINA/Chemical Technology. Chemical Products. Elements. Oxides. H-8  
Mineral Acids. Bases. Salts.

Abs Jour : Ref Zhur - Khiniye, 1958, No 22, 74523

Author : Belyayev N.

Inst : Not Given

Title : Higher Productivity of Plants Manufacturing Weak Nitric Acid

Orig Pub : Khua-syuo shitse, 1957, No 12, 537-539

Abstract : For a complete translation see Ref. Zhur.-Khiniye, 1958,  
15082

Card : 1/1

BELYAYEV, N.I.

KIL'MAN, Ya.I., kandidat tekhnicheskikh nauk.; BELYAYEV, N.I., inzhener.

Utilizing low potential heat from waste steam, Prom. energ. 12  
no. 4:16-18 Ap '57. (MIRA 10:5)  
(Steam) (Nitrogen industries)

SAMOYLOVICH, G.G., prof.; BELYAYEV, N.I., inzh.; KUDRITSKIY, D.M., dots.; GLAGOLEV, A.V., inzh.; NEFEDOV, P.M., inzh.; GALKINA, Ye.A., st. nauchn. sotr.; PLINK, L.I., inzh.; DOMSKOY, I.P., prof., retsenzent; SAVEL'YEV, V.V., kand. tekhn. nauk, dots., retsenzent; ALYSHEV, I.F., kand. tekhn. nauk, dots., retsenzent; LOBANOV, A.N., prof., doktor tekhn. nauk, retsenzent; DOROKHOV, B.A., inzh., red.

[Use of aerial photographic surveying in forest engineering]  
Primenenie aerofotos"enki v lesoinzhenernom dele. Moskva,  
Lesnaia promyshlennost', 1965. 354 p. (MIRA 18:10)

1. Kafedra sukhoputnogo transporta lesa Lesotekhnicheskoy akademii im. S.M.Kirova (for Alyshev). 2. Zamestitel' glavnogo inzhenera Gosudarstvennogo instituta po proyektirovaniyu lesnogo transporta (for Dorokhov).

KOLOSOVA, Anna Yevmen'yevna, starshiy nauchnyy sotrudnik; BELYAYEV, Nikolay Iosifovich, inzhener lesnogo khozyaystva; DANICHEV, Mikhail Prokof'yevich, inzhener lesnogo khozyaystva; BARANOV, N.I., redaktor; ARNOL'DOVA, K.S., redaktor izdatel'stva; KARASIK, N.P., tekhnicheskiy redaktor

[Use of enlarged small scale aerial photographs in forest mensuration work] Ispol'zovanie uvelichennykh melkomasshtabnykh aerofotosnimkov pri lesouchetnykh rabotakh. Moskva, Goslesbumizdat, 1956. 56 p. (MLRA 9:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut lesnogo khozyaystva (for Kolosova) 2. Leningradskiy otryad lesnoy aerofotos'yemki (for Belyayev, Danichev)  
(Photography, Aerial) (Forests and forestry--Mensuration)

BELYAYEV, N.I.

Accuracy of large-scale maps compiled by the stereotopographic  
method. Geod.i kart. no.2:50-52 F '62. (MIRA 15:3)  
(Aerial photogrammetry)

BELOV, Sergey Vasil'yevich, doktor sel'khoz. nauk; DMITRIYEV, Ivan  
Dmitriyevich, dots.; KOLOSOVA, Anna Yevmen'yevna, dots.;  
BELYAYEV, N.I., retsenzent; KIRILLOVA, L.D., red.;  
URITSKAYA, A.D., tekhn. red.

[Aerial photographic surveying and aviation in forest manage-  
ment] Aerofotos'emka i aviatsiia v lesnom khoziaistve; uchelnoe  
posobie dlia studentov lesokhoziaistvennogo fakul'teta. Pod ob-  
shchei red. S.V. Belova. Leningrad, Vses. zaochnyi lesotekhn.  
in-t, 1962. 256 p. (MIRA 16:10)

1. Nachal'nik otdela aerofotoizyskaniy Gosudarstvennogo instituta  
po proyektirovaniyu lesnogo transporta (for Belyayev).  
(Aerial photogrammetry) (Aeronautics in forestry)  
(Forest management)

L 06376-67 FSS-2/LWT(1) IJP(c) JGS/GW

ACC NR: AR6014591

SOURCE CODE: UR/0270/65/000/012/0027/0027

AUTHOR: Belyayev, N. I.

TITLE: Compilation of project data for constructing forest lanes, based on photogrammetry, requiring no studies in situ

SOURCE: Ref. zh. Geodeziya, Abs. 12.52.247

REF SOURCE: Dokl. po vopr. aerofotos"yemki. Komis. aerofotos"yemki i fotogrammetrii Geogr. o-va SSSR, vyp. 1, 1964, 14-23

TOPIC TAGS: geodesy, geodetic survey, access road, road, forestry

ABSTRACT: Research conducted by the institute "Giprolestrans" in 1961-1962 on the utilization of aerial photographs in the planning and construction of forest lanes is described. Photographic maps to the scale of 1 : 5000 were prepared from aerial photographs to the scale of 1 : 7000. These photographs were made with the camera AFA-TE ( $f_h = 200$  mm) with gyroscopic stabilizing equipment N-55 manufactured by RVTD, and with a statorscope S-51. A topographic map to the scale 1 : 25 000 was used as a geodetic planimetric base. Elevations were projected with an SD-1 from a previously prepared elevation base for a map to the scale of 1 : 25 000 on a topographic stereometer, using basic data calculated from the elements of mutual orientation, and also on an SD-1 from the altitude data for the central points of aerial photo-

Card 1/2

UDC: 528.74:634.92

L 06376-67

ACC NR: AR6014591

graphs, obtained from the data of radio-leveling. By comparing the altitudes obtained with the data from the technical leveling mean errors were determined as:  $\pm 1.35$ ,  $\pm 1.8$ ,  $\pm 1.1$  m, respectively. From the photographic maps so compiled right-of-ways of motor roads were projected. By applying the photogrammetric method of aerial photograph interpretation and by utilizing the areas of various forest-types together with the corresponding soil-types, lithological characteristics of the right-of-way were projected on the longitudinal road profiles. Design specifications for constructing motor vehicle roads and the methods for constructing the right-of-way are indicated by means of a legend of symbols. It is asserted that the volume of earthwork along the motor roads constructed throughout the year, as calculated from the profiles projected from photogrammetric materials, is somewhat smaller than that obtained from the level-survey data (by 5%). It is concluded that designing of forest lanes from photogrammetric materials can be accomplished without attempting special field geodetic work. I. Mityachkin [translation of abstract]

SUB CODE: 08

Card 2/2 *fdh*

ACC NR: AP6035697

(A, N)

SOURCE CODE: UR/0413/66/000/019/0045/0045

INVENTOR: Belyayev, N. I.

ORG: none

TITLE: A device for controlling and recording the stability of radio beacon ranges.  
Class 21, No. 186533

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 45

TOPIC TAGS: bearing stability, radio beacon, recording equipment, remote control system, control system stability

ABSTRACT: This Author Certificate presents a device for controlling and recording the stability of radio beacon ranges. The device includes a remote control instrument, an antenna with a synchronous follow-up system, and a photorecorder with a mirror microammeter and selsyn receiver with a reduction gear (see Fig. 1). The design increases the control precision. The mirror microammeter in the device is fastened to the output shaft of the selsyn receiver reduction gear in such a way that the axis of rotation of the microammeter pickup loop is perpendicular to the axis of the reduction gear

Card 1/2

UDC: 621.396.933.23:621.396.664

ACC NR: AP6035697

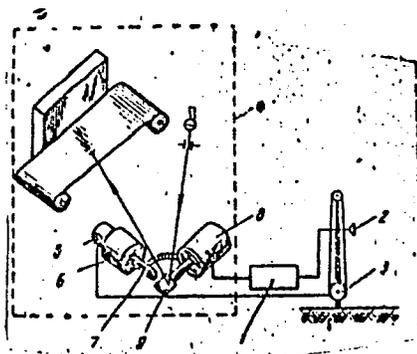


Fig. 1. 1 - remote control instrument;  
2 - antenna; 3 - synchronous follow-up  
system; 4 - photorecorder; 5 - selsyn  
receiver; 6 - reduction gear; 7 -  
reduction gear output shaft; 8 - microam-  
meter; 9 - mirror

output shaft. Orig. art. has: 1 figure.

SUB CODE: 09 17/

SUBM DATE: 27Nov64

Card 2/2

BELYAEV, N. K.

"A genetic analysis of the colour patterns in the silkworm moth." (Bombyx Mori L.)  
Laboratory of Genetics and Selection, Rbilissi Institute of Sericulture, by Belyzev,  
N. K. (p. 51)

SO: Biological Journal (Biologicheskii Zhurnal) Vol. VI, 1937, No. 1

BEKYAYEV, N M  
BEKYAYEV, N.

Rodina aviatsii; kratkie ocherki po istorii razvitiia aviatsii v  
Rossii. Moskva, Dosarm, 1950. 88 p., illus., ports.

Title tr.: The fatherland of aviation; brief historical sketches of  
the development of aviation in Russia.

TL526.R9B4

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955.

BELYAYEV, N.M.; SHANDOROV, G.S.

Determining the residual of liquids on internal walls and elements  
of emptied reservoirs. Izv.vys.ucheb.zav.; av.tekh. 6 no.3:  
118-121 '63. (MIRA 16:10)

L 15045-65 EWT(1)/EPF(σ)/EPP(n)-2/EPR/T/EPA(bb)-2/EWA(1) Pr-4/Pn-4/Pu-4  
AEDC(α)/AFMDC WW  
ACCESSION NR: AP5001636 S/0170/64/000/009/0025/0029

AUTHOR: Belik, N. P.; Belyayev, N. M.; Shandorov, G. S.

TITLE: Computing the process of evacuation<sup>21</sup> of a gas volume B

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 9, 1964, 25-29

TOPIC TAGS: convective heat transfer, thermodynamic equation, gas volume, gas evacuation

Abstract: The method given is based on the use of the equations of thermodynamics for bodies of variable mass. It is assumed that the temperature of the inside surface of the volume is constant, and that the heat transfer from this surface to the gas is by free convection. It is found that, for some parameters of the evacuation process, the equations are reduced to expressions for adiabatic and isothermal processes. Experimentally obtained data agree satisfactorily with the calculated results. Orig. art. has 1 figure and 22 equations.

ASSOCIATION: Gosudarstvennyy universitet im. 300-letiya vossoyedineniya Ukrainy s Rossiyei, Dnepropetrovsk (Dnepropetrovsk State University)

Card 1/2

L 15045-65

ACCESSION NR: AP5001636

SUBMITTED: 15Apr64

ENCL: 00

SUB CODE: TD, ME

NO REF SOV: 007

OTHER: 000

JFRS

Caru 2/2

BELYAYEV, Nikolay Mikhaylovich. Primalni uchastiye: BELYAYEVSKIY,  
~~L.A.~~; MAOMURIN, V.K.; KIPNIS, Ya.I.; KOZHEVNIKOV, I.A.;  
KUSHELEV, N.Yu.; SINITSKIY, A.K.; SNITKO, I.K., red.

[Collection of problems on the strength of materials] Sbornik  
zadach soprotivleniiu materialov. Izd.9., ispr. Moskva,  
Izd-vo "Nauka," 1965. 348 p. (MIRA 18:3)

L 45771-66 EWT(m)/EWT(1)

ACC NR: AT6025827

(N)

SOURCE CODE: UR/3207/65/000/001/0003/0007

AUTHOR: Belik, N. P.; Belyayev, N. M.; Shandorov, G. S.

60

ORG: Dnepropetrovsk University (Dnepropetrovskiy universitet)

B+1

TITLE: Calculating the process of evacuating the gas from a container through an opening of variable cross section

SOURCE: Gidraeromekhanika (Hydroaeromechanics), no. 1, Kharkov, Izd-vo Khar'kovskogo univ., 1965, 3-7

TOPIC TAGS: gas flow, thermodynamic process, isothermal flow, adiabatic process

ABSTRACT: The authors consider escape of gas from a reservoir of constant volume through a nozzle with a critical cross sectional area which varies in time assuming critical pressure drop in the container and in the atmosphere into which the gas is escaping. A method is developed for calculating this type of gas evacuation based on the use of thermodynamic equations for bodies of variable mass assuming that the temperature of the inner surface of the container is constant and that heat transfer from this surface to the gas takes place through free convection. General analytic formulas are derived for the thermodynamic process and the specific weight of the gas in the container and it is shown that expressions derived by other authors for adiabatic and isothermal processes are special cases of these formulas. Orig. art. has: 25 formulas.

SUB CODE: 20/ SUBM DATE: None/ ORIG. REF: 008

Card 1/1

ACC NR: AR6025704

SOURCE CODE: UR/0196/66/000/004/G004/G005

AUTHOR: Belik, N. P.; Belyayev, N. M.; Shandorov, G. S.

TITLE: Calculating the emptying of a gas tank through a variable-cross-section port

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 4G34

REF SOURCE: Gidraeromekhanika. Resp. mezhved. nauchno-tekhn. sb., vyp. 1, 1965, 3-7

TOPIC TAGS: gas flow, gas dynamics

ABSTRACT: A method is set forth for calculating the process of gas discharge from a constant-volume tank through a port whose cross-section varies with time; it is assumed that the discharge takes place at a supercritical pressure drop. The gas parameters in the tank due to heat exchange vary with a variable exponent of the polytrope. The method is developed on the basis of thermodynamic equations for variable-mass bodies under the assumption that the heat is transferred from surface to gas by free convection. It is shown that the process of gas tank emptying with an allowance for heat exchange can be calculated without determining the average exponent of the polytrope. Bibliography of 8 titles. Yu. Lashkov [Translation of abstract]

SUB CODE: 13, 20,

Card 1/1

UDC: 536.7

L 02524-67 EWT(1)/EWP(m) WW

ASC NR: AT6020969

SOURCE CODE: UR/3207/65/000/002/0027/0032

AUTHOR: Balyayev, N. M.; Shandorov, G. S.

54

ORG: Dnepropetrovsk University (Dnepropetrovskiy universitet)

B+1

TITLE: The formation of funnels without rotation in the discharge of a fluid through bottom openings

SOURCE: Gidraeromekhanika, no. 2, 1965, 27-32

TOPIC TAGS: fluid flow, fluid dynamics, VORTEX FLOW

ABSTRACT: The following empirical relationship has been previously proposed in the literature:

$$\frac{H_{cr}}{d} = 0.263 \left( \frac{W}{d} \right)^{0.844} \quad (i)$$

where  $H_{cr}$  is the level of water at which the funnel in the discharge pipe is ruptured;  $d$  is the diameter of the discharge pipe;  $W$  is the average flow rate in the discharge pipe. Experimental determinations were made in an apparatus consisting of a transparent cylindrical reservoir with a diameter of 250 mm and a height of 600 mm. The water was allowed to flow out through an opening in the bottom of the reservoir 42 mm in diameter and through a discharge pipe 2 meters long. Two series

Card 1/2

L 02524-67

ACC NR: AT6020969

of experiments were made, one with water and one with glycerin. Results are shown in graphic form. Based on the experimental data the following results were achieved: 1) a relationship was obtained for the dimensionless height  $H_{cr}/d$  at which the funnel is ruptured; 2) the effect of viscosity on the value of  $H_{cr}/d$  was established at small values of the Reynolds number ( $Re < 700$ ); a qualitative determination was made of the effect of viscosity on the form of the free surface and the volume of a funnel without rotation in the discharge of a fluid. Orig. art. has: 7 formulas and 6 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003

Card 2/2 *egh*

VAKS, Ye.E., inzh.; Prinsipalni uchastiye; ALESHIN, P.A., kand. tekhn. nauk;  
BELYAYEV, N.N., inzh.

Development and investigation of the thread regulator.  
Nauch.-issl. trudy TSNIIShersti no.16:54-58 '61. (MIRA 16:11)

GAKEI<sup>3</sup>, R.A., kand.tekhn.nauk; Prinsipali uchastiye: KOVYAZINA, D.Ye.,  
mladshiy nauchnyy sotrudnik; BELYAYEV, N.N., inzh.; KUZNETSOV, R.N.;  
RYSEVA, S.N., mladshiy nauchnyy sotrudnik

Development of the technology for the manufacture of bulk yarn  
with the method of tow converting of synthetic fibers. Nauch.-  
issl.trudy TSNIIShersti no.18:75-93 '63.

(MIRA 18:1)

BELYAYEV, N.N., inzh.

Automation of the dyeing of wool fabrics. Nauch.-issl.trudy  
TSNIIShersti no.18:131-143 '63. (MIRA 18:1)

VYACHESLAVOVA, Tat'yana Vasil'yevna; ~~saslushennyy~~ agronom RSFSR;  
BELYAYEV, Nikolay Nikolayevich; MAL'CHIKOVA, V.K., red.;  
PRESNOVA, V.A., tekhn.red.

[Correct crop rotation is the basis for high crop yields;  
from the practices of the Gatchina Variety Testing Station]  
Pravil'nyi sevooborot - osnova vysokikh urozhaev; iz opyta  
raboty Gatchinskogo sortouchastka. Leningrad, Lenizdat,  
1961. 61 p. (MIRA 15:2)  
(Gatchina District--Agricultural experiment stations)  
(Rotation of crops)

БЕЛАЗЫВ, Н.Н., инж.

Automatic control of the dyeing of wool tops in packing-type  
apparatus. Nauch.-issl. trudy TSNITShereati no.17.96-102 '62.  
(MIRA 17:12)

SMIRNOVA, V.F., inzh.; ZOTOV, V.L., inzh.; Prinimali uchastiye: BELYAYEV,  
N.N.; OCHKASOVA, Z.P., inzh.

Coating of headwear with a nap finishing by means of the  
electrostatic method. Nauch.-issl. trudy TSNIIShersti  
no.17:124-126 '62. (MIRA 17:12)

1. Rukovoditel' laboratorii avtomatizatsii TSentral'nogo  
nauchno-issledovatel'skogo instituta sherstyanoy promyshlennosti  
(for Belyayev).

BELYAYEV, N.P., podpolkovnik meditsinskoy sluzhby

Study of neurocirculatory dystonia in flying personnel. Voен.-med.  
zhur. no.5:77-80 My '60. (MIRA 13:7)

(BLOOD--CIRCULATION, DISORDERS OF)  
(AVIATION MEDICINE)

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AUTHOR: Belyayev, N.P., Lieutenant-Colonel, Medical Corps

TITLE: Explosive decompression with cabin depressurization

PERIODICAL: Voenno-meditsinskiy zhurnal, no. 5, 1961, 72-75

TEXT: Due to the lack of published data on the clinical aspects of large atmospheric pressure drops, the author studied several cases of explosive decompression which ensued during high-altitude flights, due to the formation of defects in the pressurizing apparatus of the plane at heights ranging from 7,000 to 10,300 meters. The atmospheric pressure drop comprised about 1,000 mm Hg/sec. All crew members felt general debility, fatigue, heaviness and pain in the head, and pain and noise in the ears. Some persons noted an unusual feeling of inflation of the intestines. After some time these phenomena

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